Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A method of making ready for presentation a graphical element in a computer application program by communicating with a computer operating system, the method comprising:

maintaining a measure queue storing a list of elements to be measured;

maintaining an arrange queue storing a list of elements to be arranged;

executing a first procedure for measuring the element, wherein the first procedure at least determines whether the element has one or more children, determines, if the element has one or more children, whether the one or more children of the element is to be measured, and determines a size for the element based on an element type for the element when the element has no children, wherein if the element is determined to have one or more children, then the element is determined to be a parent element, wherein if it is determined that the one or more children of the parent element is to be measured, then only the parent element is stored in the measure queue, wherein executing the first procedure for measuring the element recursively executes the first procedure on one or more child elements of the parent element, wherein if it is determined that the one or more children of the parent element is not to be measured, then the one or more children of the parent element is determined to be an orphan, and wherein executing the first procedure for measuring the element does not recursively execute the first procedure on the orphan, and wherein the orphan is removed from the measure queue;

signaling the element's need to be measured by the first procedure, wherein the signaling comprises notifying the element's parent-element;

executing a second procedure for arranging the element, wherein the element is stored in the arrange queue; and

wherein the second procedure is invoked and executed independently from the first procedure, computes a final size for the element, performs internal arrangement functions on the element if the element has no children, and if the element has children, computes display

positions for a child-element of the element, wherein the internal arrangement functions include font, alignment, and color operations affecting the appearance of the element and wherein the display positions comprise a coordinate of a shape representing the element.

2. (Original) The method of claim 1, wherein the first procedure returns a desired size for the element.

3. (Original) The method of claim 2, wherein the first procedure computes desired sizes for child-elements of the element.

4. (Original) The method of claim 2, wherein the first procedure comprises determining whether a child-element requires computation of its desired size.

5-6. (Canceled)

7. (Canceled)

8. (Original) The method of claim 7, wherein the signaling step comprises calling a measure invalidation function.

9. (Original) The method of claim 8, wherein the signaling step further comprises setting a flag on the element.

10. (Original) The method of claim 7, wherein the signaling step comprises notifying the operating system.

11. (Canceled)

12. (Original) The method of claim 7, wherein the element requests the measuring of all elements needing to be measured.

13. (Original) The method of claim 1, further comprising signaling with a signal an element's need to be arranged by the second procedure.

14. (Original) The method of claim 13, wherein the signal comprises calling an arrange invalidation function.

15. (Original) The method of claim 14, wherein the signaling step further comprises setting a flag on the element.

16. (Original) The method of claim 13, wherein the element requests the arranging of all elements needing to be arranged.

17. (Currently Amended) A computer storage medium having stored thereon a set of executable procedures callable by a computer application program for making ready for presentation a graphical element, including at least:

a measure queue for storing a list of elements to be measured;

an arrange queue for storing a list of elements to be arranged;

a first procedure for measuring the element, wherein the first procedure is used to determine whether the graphical element has one or more children, determine, if the graphical element has one or more children, whether the one or more children of the graphical element is to be measured, and determine a size for the graphical element based on an element type for the graphical element when the graphical element has no children, wherein if the graphical element is determined to have one or more children, then the graphical element is determined to be a parent element, wherein if it is determined that the one or more children of the parent element is to be measured, then only the parent element is stored in the measure queue, wherein the first procedure for measuring the element comprises recursively executing the first procedure on one or more child elements of the parent element, wherein if it is determined that the one or more children of the parent element is not to be measured, then the one or more children of the parent element is determined to be an orphan, and wherein the first procedure for measuring the graphical element does not recursively execute on the orphan, and wherein the orphan is removed from the measure queue;

a second procedure for arranging the element, wherein the element is stored in the arrange queue, and wherein the second procedure at least determines whether the element has one or more children and performs internal arrangement functions on the element when the element has no children; and

wherein the first procedure is used for signaling to the parent element a child element's need to be measured, wherein the first procedure and the second procedure are used to manage a layout of one or more graphical elements, and the second procedure is called and executed independently from the first procedure, and wherein the second procedure computes a final size for the element, performs internal arrangement functions on the element if the element has no children, and if the element has children, computes display positions for a child-element of the element, wherein the internal arrangement functions include font, alignment, and color operations affecting the appearance of the element and wherein the display positions comprise a coordinate of a shape representing the element.

18. (Previously Presented) The computer storage medium of claim 17 wherein the first procedure returns a desired size for the element.

19. (Canceled)

20. (Previously Presented) The computer storage medium of claim 17 further including at least a procedure for signaling the element's need to be measured.

21. (Previously Presented) The computer storage medium of claim 17 further including at least a procedure for signaling the element's need to be arranged.

22. (Canceled)

23. (Previously Presented) The computer storage medium of claim 17 further including at least a procedure for requesting the measurement of all elements needing to be measured.

24. (Previously Presented) The computer storage medium of claim 17 further including at least a procedure for requesting the arrangement of all elements needing to be arranged.

25. (Canceled)

26. (Currently Amended) A computer system for making ready for presentation a graphical element, the system comprising:

a memory for storing executable program code; and

a processor, functionally coupled to the memory, the processor being responsive to computer-executable instructions contained in the program code and operative to:

maintain a measure queue for storing a list of elements to be measured;

maintain an arrange queue for storing a list of elements to be arranged;

execute a first executable procedure using a data structure representing the element for measuring the element, wherein the first executable procedure at least determines whether the element has one or more children, determines, if the element has one or more children, whether the one or more children of the element is to be measured, and determines a size for the element based on the an element type for the element when the element has no children, wherein if the element is determined to have one or more children, then the element is determined to be a parent element, wherein if it is determined that the one or more children of the parent element is to be measured, then only the parent element is stored in the measure queue, wherein executing the first procedure for measuring the element recursively executes the first procedure on one or more child elements of the parent element, wherein if it is determined that the one or more children of the parent element is not to be measured, then the one or more children of the parent element is determined to be an orphan, and wherein executing the first procedure for measuring the element does not recursively execute the first procedure on the orphan, and wherein the orphan is removed from the measure queue, and wherein the first executable procedure signals to a parent element a child element's need to be measured; and

execute a second executable procedure using the data structure for arranging the element, wherein the element is stored in the arrange queue, wherein the second executable procedure computes a final size for the element, performs internal arrangement functions on the element if the element has no children, and if the element has children, computes display

positions for a child-element of the element, wherein the internal arrangement functions include font, alignment, and color operations affecting the appearance of the element and wherein the display positions comprise a coordinate of a shape representing the element.

27. (Original) The system of claim 26 wherein the data structure comprises:

a first value representing the desired size of the element;

a second value representing the computed size of the element;

a first flag for triggering measurement of the element; and

a second flag for triggering arrangement of the element.

28. (Original) The system of claim 26 wherein the first executable procedure returns a desired size for the element.

29. (Original) The system of claim 28 wherein the first executable procedure computes desired sizes of child-elements of the element.

30-31. (Canceled)

32. (Previously Presented) The system of claim 27, wherein the processor is further operative to execute an executable procedure using the first flag for signaling the element's need to be measured by the first executable procedure.

33. (Previously Presented) The system of claim 28, wherein the processor is further operative to execute an executable procedure using the second flag for signaling the element's need to be arranged by the second executable procedure.

34-42. (Canceled)